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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CAO, DIEM K

ART UNIT PAPER NUMBER

2194

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/470,645

Applicant(s)

NIKOLS ET AL.

Examiner

Diem K Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7, 9, 11, 15, 18-20, 22, 26, 27 and 29-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7, 9, 11, 15, 18-20, 22, 26-27 and 29-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 7, 9, 11, 15, 18-20, 22, 26-27 and 29-41 are pending. Applicant has amended claims 7, 15, 18, 32 and 40.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7, 9, 11, 15, 26-27 and 32-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meltzer et al. (U.S. 6,125,391) in view of Cronin et al. (U.S. 6,772,396 B1) further in view of Heskett (An XML standard for directory services).

4. **As to claim 7**, Meltzer teaches receiving an event from a server into an XML generator (registration acknowledgment ... to a document format; col. 83, lines 62-64 and document to host and host to document translation; col. 82, lines 26-57), converting the event into XML data representing the event (the registration acknowledgment data is converted to a document format; col. 83, lines 63-64), transforming the XML data representing the event to a first predetermined format by a transformation processor using a transformation file (translating ... host system; col. 23, lines 51-63 and translator module 302; col. 23, lines 51-63), the first predetermined format being responsive to a first application running in the computer network (translating ... host

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system; col. 23, lines 51-63), transmitting the transformed XML data representing the event to the first application (commercial functions 305, database functions 306, etc.; col. 23, line 64 – col. 24, line 53).

5. Although Meltzer does not explicitly teach transforming the XML data representing the event to a second predetermined format by the transformation processor using a second stylesheet, the second predetermined format being responsive to a second application running in the computer network, and transmitting the transformed XML data representing the event to the second application, these limitations are inherently taught in the system of Meltzer because there are multiple participants in the system, and the routing process of the market maker node capable of transform an input document into documents for multiple processes before routing them to other node (The routing process ... is to be routed; col. 7, lines 6-9 and col. 8, lines 3-6).

6. However, Meltzer does not teach a distributed directory, an event representing a change to the distributed directory, transforming the XML data to a predetermined format using a stylesheet. Meltzer suggests the transforming the XML data to Java format or any other capable format (Such front ends ... across a network; col. 3, lines 49-52). Heskett teaches using XML as a means to exchange information housed in directories, and XML is becoming increasingly popular as a way to link disparate computer systems to exchange information in areas ranging from purchase orders to part description (page 1). So, a directory retrieves requested data is one type of event in the directory. Cronin teaches transforming the XML data to a predetermined format using a stylesheet (col. 7, lines 44-58 and col. 12, lines 24-29).

7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Meltzer, Cronin, and Heskett because it provides a method to sending information to the target applications in their own formats (Cronin reference, abstract) and apply the well known technique to new area, distributed directory so the information could be exchange between applications and directories.

8. **As to claim 9**, Meltzer does not explicitly teach receiving updates to the first stylesheet responsive to any changes in either the distributed directory or the first application. Cronin teaches the stylesheet contains any desired customization options for the target site (col. 7, line 56 – col. 8, line 10). It would have been obvious to one of ordinary skill in the art when the first application changes it desired layout, the stylesheet must also be changed to reflect the change in the layout.

9. **As to claim 11**, Meltzer teaches instruction for detecting the second event through notification from an event handler of the distributed directory (event listener; col. 10, lines 46-65 and Fig. 11).

10. **As to claim 26**, Meltzer as modified teaches transmitting the transformed XML data representing the first event to the first application includes transmitting the transformed XML data representing the event to the first application through a first application shim to provide the transformed XML data representing the first event to the first application by using a first native

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application program interface for the first application (transaction processing front end; col. 23, line 51 – col. 24, line 53). Meltzer inherently teaches transmitting the transformed XML data representing the second event to the second application includes transmitting the transformed XML data representing the event to the second application through a second application shim to provide the transformed XML data representing the second event to the second application by using a second native application program interface for the second application because there are multiple participants in the system, and the routing process of the market maker node capable of transform an input document into documents for multiple processes before routing them to other node (The routing process ... is to be routed; col. 7, lines 6-9 and col. 8, lines 3-6).

11. **As to claim 27**, Meltzer teaches the first predetermined format and the second predetermined format are the same predetermined format (Java format; col. 3, lines 49-52).

12. **As to claim 15**, Meltzer teaches receiving a first event from a first application in a first native application format (input document is received at the network interface from an originating participant node; col. 83, lines 29-44), converting the first event into markup language data (all the document received in non-XML syntaxes are translated into XML; col. 84, lines 16-33), transforming the first event to a predetermined format by a transformation processor using a profile (the XML documents are passed to the processor 1502 which translates them into the JAVA format; col. 84, lines 45-47), the predetermined format being responsive to the server (the document is translated to the format of the host, for example XML to JAVA; col.

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83, lines 29-44), transmitting the transformed first event to the distributed directory (document service, back end system; col. 84, lines 50-67).

13. Although Meltzer does not teach receiving a second event from a second application in a second native application format, the second event representing a second change to the distributed directory, converting the second event into markup language data, transforming the second event to the predetermined format by the transformation processor using the transformation profile, and transmitting the transformed second event to the distributed directory, these limitations are inherently taught by Meltzer because there are multiple participants in the system, and all the documents received are translated to the language of the server.

14. However, Meltzer does not teach a distributed directory, an event representing a first change to the distributed directory, the transformation profile including formatting instructions for transforming the markup language data to the predetermined format. Heskett teaches using XML as a means to exchange information housed in directories, and XML is becoming increasingly popular as a way to link disparate computer systems to exchange information in areas ranging from purchase orders to part description (page 1). So, a directory retrieves requested data is one type of event in the directory. Cronin teaches the transformation profile including formatting instructions for transforming the markup language data to the predetermined format (col. 7, line 56 – col. 8, line 10).

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15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Meltzer, Cronin, and Heskett because it provides a method to sending information to the target applications in their own formats (Cronin reference, abstract) and apply the well known technique to new area, distributed directory so the information could be exchange between applications and directories.

16. **As to claim 32**, Meltzer teaches detecting an event in the server (the router 1104, participant registry, document filter, listeners; col. 82, lines 26-50 and event listener; col. 10, lines 46-65 and Fig. 11 and registration acknowledgment ... to a document format; col. 83, lines 62-64 and document to host and host to document translation; col. 82, lines 26-57), transforming the event to the first predetermined format by using a transformation tool and the profile (translating ... host system, BID data; col. 23, lines 51-63 and translator module 302; col. 23, lines 51-63), providing to the first application the event transformed to the first predetermined format (commercial functions 305, database functions 306, etc.; col. 23, line 64 – col. 24, line 53).

17. However, Meltzer does not teach a distributed directory, an event representing a change to the distributed directory, providing a first transformation profile defining a first predetermined format for use by a first application, providing a second transformation profile defining a second predetermined format for use by a second application, and transforming the event to the first predetermined format using the first transformation profile, and transforming the event to the second predetermined format using the second transformation profile. Heskett teaches using

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XML as a means to exchange information housed in directories, and XML is becoming increasingly popular as a way to link disparate computer systems to exchange information in areas ranging from purchase orders to part description (page 1). Cronin teaches providing a first transformation profile defining a first predetermined format for use by a first application, providing a second transformation profile defining a second predetermined format for use by a second application (style sheets; col. 7, line 50 – col. 8, line 10), and transforming the event to the first predetermined format using the first transformation profile, and transforming the event to the second predetermined format using the second transformation profile (The dynamic binder ... in style sheets 180; col. 7, lines 50-53 and col. 12, lines 24-29).

18. Although Meltzer does not explicitly teach transforming the event to the second predetermined format by using the transformation tool and the second transformation profile, and providing to the second application the event transformed to the second predetermined format, they are inherently taught by Meltzer and Cronin because there are multiple participants in the system, and the routing process of the market maker node capable of transform an input document into documents for multiple processes before routing them to other node (The routing process ... is to be routed; col. 7, lines 6-9 and col. 8, lines 3-6).

19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Meltzer, Cronin, and Heskett because it provides a method to sending information to the target applications in their own formats (Cronin reference, abstract)

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and apply the well known technique to new area, distributed directory so the information could be exchange between applications and directories.

20. **As to claim 33**, Meltzer teaches converting the event to a generic data description before transforming the event to the first predetermined format and the second predetermined format (the registration acknowledgment data is converted to a document format; col. 83, lines 63-64).

21. **As to claim 34**, Meltzer teaches providing an application shim for the first application to receive the event transformed to the first predetermined format and to provide the event to the first application by using a native application program interface for the first application (transaction processing front end; col. 23, line 51 – col. 24, line 53).

22. **As to claim 35**, Meltzer teaches updating the application shim and the first transformation profile responsive to changes in the first application (the business interface ... kept up to date; col. 25, lines 34-43). Also see rejection of claim 9 above.

23. **As to claim 36**, Meltzer teaches providing a second application shim for the second application to receive the event transformed to the second predetermined format and to provide the event to the second application by using a second native application program interface for the second application (transaction processing front end; col. 23, line 51 – col. 24, line 53).

24. **As to claim 37**, see rejection of claim 35 above.

25. **As to claim 38**, Meltzer does not teach the transformation profile includes a stylesheet.

Cronin teaches the transformation profile includes a stylesheet (style sheet; col. 7, lines 50-53).

26. **As to claim 39**, Meltzer does not teach the transformation profile is stored in the directory. Cronin teaches the transformation profile is stored in the computer (col. 7, lines 48-53). It would have been obvious to one of ordinary skill in the art the transformation profile could be stored in the server in the system of Meltzer because it would be faster to retrieve and apply the stylesheet to the event.

27. **As to claim 40**, see rejections of claims 32 and 33 above.

28. **As to claim 41**, Meltzer teaches a generator to receive an application event from the first application (incoming data; col. 84, lines 16-39) and to generate a second generic data for the application event (All the documents received in non-XML syntaxes are translated into XML; col. 84, lines 30-39), the transformation processor is operative to transform the second generic data for the application event into a directory data (An XML instance is translated to Java instance; col. 84, lines 40-45), and a receiver to receive the directory data in the directory (The Java beans are passed to the document router ... solution software; col. 84, lines 50-63).

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29. Claims 18-20, 22, and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meltzer et al. (U.S. 6,125,391) in view of Cronin et al. (U.S. 6,772,396 B1) and Heskett (An XML standard for directory services) further in view of Harrison et al. (U.S. 6,622,170 B1).

30. **As to claim 18**, Meltzer teaches a first processor (market maker 15 node, computer, processor; col. 9, lines 9- 44) connected to a network (internet 19; col. 9, lines 9-44) for executing computer code (computer program; col. 9, lines 9-44), a second processor (market participant 12, computer, processor; col. 9, lines 9-44) connected to the network (internet 19; col. 9, lines 9-44) for executing computer code (computer program; col. 9, lines 9-44), a first memory connected to the first processor (memory; col. 9, lines 9-44), a second memory connected to the second processor (memory; col. 9, lines 9-44), a market maker, a portion of which being stored in the first memory (the market maker nodes include ... BID registry; col. 9, lines 35-37), an application (market participants), a portion of which being stored in the second memory (market participants include resources ... to be traded; col. 9, lines 29-34), software for detecting an event in the server (the router 1104, participant registry, document filter, listeners; col. 82, lines 26-50 and event listener; col. 10, lines 46-65 and Fig. 11), software for transforming the event to the first predetermined format by using a generic transformation tool (translating ... host system; col. 23, lines 51-63 and translator module 302; col. 23, lines 51-63), software for providing to the first application the directory event transformed to the first predetermined format (commercial functions 305, database functions 306, etc.; col. 23, line 64 – col. 24, line 53).

31. However, Meltzer does not teach a distributed directory wherein the first and second portions of the distributed directory are stored in the first memory and the second memory, the directory event representing a change to the distributed directory, providing a first transformation profile defining a first predetermined format for use by the first application, providing a second transformation profile defining a second predetermined format for use by the second application, and transforming the event to the first predetermined format using the first transformation profile, and transforming the event to the second predetermined format using the second transformation profile. Harrison teaches a distributed directory (LDAP server 20; col. 6, lines 40-58, and the directory itself can be centralized or distributed; col. 1, line 65 – col. 2, line 13), wherein a first portion and a second portion of the distributed directory are located in a first partition and a second partition, respectively (If the directory is distributed ... non-overlapping subset of the information), a mechanism to enable clients to read information from a server directory while another client is attempting to update information (col. 3, lines 29-32). Heskett teaches using XML as a means to exchange information housed in directories, and XML is becoming increasingly popular as a way to link disparate computer systems to exchange information in areas ranging from purchase orders to part description (page 1). Cronin teaches providing a first transformation profile defining a first predetermined format for use by a first application, providing a second transformation profile defining a second predetermined format for use by a second application (style sheets; col. 7, line 50 – col. 8, line 10), and transforming the event to the first predetermined format using the first transformation profile, and transforming the event to the second predetermined format using the second transformation profile (The dynamic binder ... in style sheets 180; col. 7, lines 50-53 and col. 12, lines 24-29).

32. Although Meltzer does not explicitly teach transforming the event to the second predetermined format by using the transformation tool and the second transformation profile, and providing to the second application the event transformed to the second predetermined format, they are inherently taught by Meltzer and Cronin because there are multiple participants in the system, and the routing process of the market maker node capable of transform an input document into documents for multiple processes before routing them to other node (The routing process ...is to be routed; col. 7, lines 6-9 and col. 8, lines 3-6).

33. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Meltzer, Cronin, Heskett and Harrison because it provides a method to sending information to the target applications in their own formats (Cronin reference, abstract) and apply the well known technique to new area, distributed directory so the information could be exchange between applications and directories.

34. **As to claim 19**, Meltzer as modified teaches software for converting the directory event to a generic data description before transforming the directory event (the registration acknowledgment data is converted to a document format; col. 83, lines 63-64).

35. **As to claim 20**, Meltzer as modified teaches an application shim for the first application to receive the transformed directory event and provide the directory event to the first application

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by using a first native application interface for the first application (transaction processing front end; col. 23, line 51 – col. 24, line 53).

36. **As to claim 22**, Meltzer as modified teaches (col. 82, lines 26-50) the generic transformation tool utilizes a markup language (XML document) and the software for transforming the directory event utilizes a transformation processor (a document to host and host to document translator).

37. **As to claim 29**, Meltzer as modified teaches a directory profile for use by the distributed directory (BID data; col. 84, lines 34-43), software for detecting an application even in the first application (event listeners; col. 26, lines 40-57), software for transforming the application event to the directory predetermined format by using the generic transformation tool and the directory profile (A business interface definition compiler ... into the JAVA format; col. 84, lines 38-47), and software for providing the transformed application event to the distributed directory (document router 1503, event listener, document service; col. 84, lines 47-67).

38. However, Meltzer does not teach a directory transformation profile defining a directory predetermined format for use by the distributed directory. Cronin teaches the transformation profile defining a predetermined format for use by each target server (col. 7, line 56 – col. 8, line 10).

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39. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Meltzer, Cronin, and Heskett because it provides a method to sending information to the target applications in their own formats (Cronin reference, abstract) and apply the well known technique to new area, distributed directory so the information could be exchange between applications and directories.

40. **As to claim 30**, see rejection of claim 29 above except the event is from the second application.

41. **As to claim 31**, Meltzer teaches a second application shim for the second application to receive the transformed directory event to the second application by using a second native application program interface for the second application (transaction processing front end; col. 23, line 51 – col. 24, line 53).

Response to Arguments

42. Applicant's arguments with respect to claims 7, 15, 18, 32 and 40 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

43. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K Cao whose telephone number is (571) 272-3760. The examiner can normally be reached on Monday - Friday, 8:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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